



National Aeronautics and
Space Administration

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**NASA-STD-2806
October 23, 1995**

NETWORK PROTOCOL

NASA TECHNICAL STANDARD

FOREWORD

This standard is approved for use by NASA Headquarters and all NASA Centers and is intended to provide a common framework for consistent practices across NASA programs.

The material covered in this standard is based on the consensus judgment of the NASA Chief Information Officer (CIO) Representatives Board and the NASA CIO Council. The purpose of this standard is to establish a standard Wide Area Network (WAN) protocol for NASA's interoperable environment. While this notice applies to all NASA funded intercenter communications, Center CIO Representatives are encouraged to consider protocols consistent with this notice for intercenter local area networks.

Requests for information, corrections, or additions to this standard should be directed to Marshall Space Flight Center (MSFC), the Principal Center for Communications Architecture, Code AI51, Huntsville, AL, 35812. Requests for additional copies of this standard should be sent to NASA Engineering Standards, EL01, MSFC, AL, 35812 (telephone 205-544-2448).

Ronald S. West
Chief Information Officer

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NETWORK PROTOCOL

1. SCOPE

1.1 Purpose. This notice establishes a standard Wide Area Network (WAN) protocol for NASA's interoperable environment.

1.2 Applicability. While this notice applies to all NASA-funded intercenter communications, Center CIO Representatives are encouraged to consider protocols consistent with this notice for intercenter local area networks.

1.3 Responsibility. Each Center CIO Representative is responsible for (1) ensuring that all non-compliant networking protocols transition to the appropriate protocol suite to support Agencywide interconnectivity, interoperability, security, and performance goals for systems and networks; (2) determining the transition method for their Center; and (3) providing a transition plan to achieve the purpose of this standard to each respective Institutional Program Office (IPO) CIO Representative.

2. RATIONALE

2.1 Rationale. NASA's Intercenter Council for Computer Networking (ICCN) recommended a policy which limits networking protocols that can be transmitted over the Agency's WANs. In order to support the NASA interoperability goal and to minimize the drivers of WAN costs (e.g., supporting multiple protocols, providing multiple solutions to support interoperability, unnecessary replication), only the approved protocol will be permitted to enter or leave a Center via NASA's WANs. Thus, any application or functional service, such as remote printing or remote access to a computer, must utilize the approved standard protocol suite rather than any vendor proprietary protocol.

3. STANDARD PROTOCOL

3.1 Standard Protocol. Standard protocol for transmission on NASA's WANs is the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite.

3.2 Effectivity. This standard is effective December 29, 1995.

3.3 Waivers. All proposed waivers to this standard must be submitted by the Center CIO Representative to the Principal Center for Communications (MSFC) for analysis. A recommendation for granting or denying the waiver will be provided by the Principal Center to the Agency Chief Information Officer, who will grant or deny the waiver.

4. DURATION

4.1 Duration. This standard will remain in effect until canceled or modified by the NASA CIO.